CLAIMS

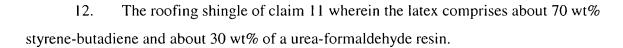
What is claimed is:

- 1. A modified copolymer latex binder for polyester fibers comprising at least 10 wt% 90 wt% styrene-butadiene and a corresponding amount of 90 wt% 10 wt% of a urea-formaldehyde resin wherein the urea-formaldehyde resin is prepared by adding a short-stop agent to the urea-formaldehyde resin reaction system.
- 2. The modified copolymer latex binder of claim 1 wherein the latex binder comprises about 70 wt% styrene-butadiene and about 30 wt% of a urea-formaldehyde resin.
- 3. The modified copolymer latex binder of claim 2 wherein the styrene-butadiene latex comprises about 10-90 wt% styrene and about 90-10 wt% butadiene modified by a cross-linking agent.
- 4. The modified copolymer latex binder of claim 3 wherein the styrene-butadiene latex comprises about 30-70 wt% styrene and about 70-30 wt% butadiene modified by a cross-linking agent.
- 5. The modified copolymer latex binder of claim 3 wherein the styrene-butadiene latex comprises about 40 wt% styrene and about 60 wt% butadiene modified by a cross-linking agent.
- 6. A sheet comprising a single layer of nonwoven or woven polyester mat coated with a binder composition including at least 10 wt% 90 wt% styrene-butadiene latex and 90 wt% 10 wt% urea-formaldehyde wherein the urea-formaldehyde resin is prepared by adding a short-stop agent-to the urea-formaldehyde resin reaction system.
- 7. The sheet of claim 6 wherein the latex binder comprises about 70 wt% styrene-butadiene and about 30 wt% of a urea-formaldehyde resin.

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- 8. The sheet of claim 6 wherein the styrene-butadiene latex comprises about 10-90 wt% styrene and about 90-10 wt% butadiene modified by a cross-linking agent.
- 9. The sheet of claim 6 wherein the styrene-butadiene latex comprises about 30-70 wt% styrene and about 70-30 wt% butadiene modified by a cross-linking agent.
- 10. The sheet of claim 6 wherein the styrene-butadiene latex comprises about 40 wt% styrene and about 60 wt% butadiene modified by a cross-linking agent.
 - 11. A roofing shingle, comprising:

an asphalt-coated polyester mat embedded with granules, said polyester mat comprising a plurality polyester fibers bonded with a modified styrene-butadiene latex modified with a urea-formaldehyde resin, wherein the urea-formaldehyde resin is prepared by adding a short-stop agent to the urea-formaldehyde resin reaction system.



- 13. The roofing shingle of claim 12 wherein the latex comprises about 10-90 wt% styrene and about 90-10 wt% butadiene modified by a cross-linking agent.
- 14. The roofing shingle of claim 13 wherein the latex comprises about 30-70 wt% styrene and about 70-30 wt% butadiene modified by a cross-linking agent.
- 15. The roofing shingle of claim 13 wherein the latex comprises about 40 wt% styrene and about 60 wt% butadiene modified by a cross-linking agent.

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